

Notice of Allowability

Application No.

10/804,198

Examiner

Qutub Ghulamali

Applicant(s)

SAUNDERS ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 6/29/2007.
2. ☒ The allowed claim(s) is/are 21-33.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 6/29/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/23/2007 has been entered.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 6/29/2007 has been entered.

Response to Remarks/Amendments

3. Applicant's request for consideration of the references, IDS, filed 6/29/2007, with respect to claim(s) 21-33, have been fully considered and after a further search and examination claims 21-33 now indicated allowable. However, in order to correct for

some minor claim deficiency in the noted claim below, an examiner's amendment was considered necessary to advance prosecution in the case.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael E. Cox on 8/6/2007.

The application has been amended as follows:

IN THE CLAIM:

Claim 31, line 1, after comprising, the period "." Has been replaced with -- : --.

Claim 31, line 3, after "transmitter signal" the word "an" has been replaced with -- the second --.

Claim 31, line 3, after "such that the" the word -- second -- has been inserted.

5. Claims 21-33 allowed.

Reason for Allowance

6. The following is an examiner's statement of reasons for allowance:

The prior art of record, in combination with other claimed limitations neither teaches nor renders obvious an apparatus having a transmitter configured to send a

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transmitter signal associated with a frequency a receiver associated with the frequency a signal cancellation circuit coupled to the transmitter, where the signal cancellation circuit is further configured to execute a training sequence including generating a detector signal based on an amplitude of the training sequence of the transmitter signal, modifying a first amplitude of the first portion of the transmitter signal based on the detector signal, and modifying a second amplitude of the first portion of the transmitter signal such that the second amplitude of the first portion of the transmitter signal is substantially equal to an amplitude of the second portion of the transmitter signal. Such limitations as recited in independent claim 21, is neither anticipated nor rendered obvious by the prior art of record.

The prior art of record, in combination with other claimed limitations neither teaches nor renders obvious a method comprising:

phase shifting a first portion of a transmitter signal to produce a phase-shifted signal, the transmitter signal being associated with a frequency; generating a detector signal based on an amplitude of a training sequence of the transmitter signal; modifying a first amplitude of the first portion of the transmitter signal based on the detector signal; combining the phase-shifted signal with a second portion of the transmitter signal to produce a reduced signal, the second portion of the transmitter signal being associated with a reflection of the transmitter signal from an antenna, the antenna being coupled to a homodyne transceiver; and modifying a second amplitude of the first portion of the transmitter signal such that the second amplitude of the first portion of the transmitter

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signal is substantially equal to an amplitude of the second portion of the transmitter signal.

Such limitations as recited in independent claim 30, is neither anticipated nor rendered obvious by the prior art of record.

7. Claims 22-29 and 31-33, allowed by virtue of their dependency to claims highlighted above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patents:

US Pub. Taki et al.

US Patent 6,531,957, to Nysen.

US Pub. 2003/0193997, to Dent et al.

US Pub. 2004/0052220, to Chen et al.

US Pub. 2003/0060227, to Sekine et al.

US Pub. 2003/0184469, to Brosche.

US Pub. 2003/0220081 to Dykstra et al.

US Pub. 2004/0212529 to Fehrenbach et al.

US Pub. 2004/0185815 to Fukuda et al.

US Patent 7,099,662 to Fuenfgeld et al.

US Patent 6,608,669 to Holton.

US Patent 7,072,614 to Kasperkovitz.

US Patent 4,577,309 to Barazeche et al.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday, 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QG.

July 25, 2007.


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER